

WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL



KEMP QUARRIES / PRYOR [70967]

OHT129

Transmission (Manual)

PETRO CANADA PRODURO TO-4 SAE 30 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. (Customer Sample Comment: Pm1 performed. All oil samples taken. Engine oil, engine oil filters, fuel filters, air filters, and cabin air filters changed.)

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All component wear rates are normal.

CONTAMINATION

There is no indication of any contamination in the oil.

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PCA0108894	PCA0086665	
Sample Date		Client Info		22 Jun 2024	23 Apr 2024	
Machine Age	hrs	Client Info		15416	15042	
Oil Age	hrs	Client Info		374	0	
Filter Age	hrs	Client Info		374	0	
Oil Changed	1110	Client Info		Oil Added	Changed	
Filter Changed		Client Info		Not Changd	Changed	
Sample Status				NORMAL	NORMAL	
Iron	ppm	ASTM D5185m	>200	7	18	
Chromium	ppm	ASTM D5185m	>5	<1	0	
Nickel	ppm	ASTM D5185m	>5	<1	0	
Titanium	ppm	ASTM D5185m		<1	<1	
Silver	ppm	ASTM D5185m	>7	2	3	
Aluminum	ppm	ASTM D5185m	>25	2	2	
Lead	ppm	ASTM D5185m	>45	13	28	
Copper	ppm	ASTM D5185m	>225	23	58	
Tin	ppm	ASTM D5185m	>10	<1	2	
Vanadium	ppm	ASTM D5185m		<1	0	
White Metal	scalar	*Visual	NONE	NONE	NONE	
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
Silicon	nom	ASTM D5185m	>125	7	9	
Silicon Potassium	ppm	ASTM D5185m	>125 >20	7 2	9	
Potassium	ppm ppm	ASTM D5185m	>20	2	2	
Potassium Water	ppm	ASTM D5185m WC Method	>20 >0.1	2 NEG	2 NEG	
Potassium Water Silt	ppm scalar	ASTM D5185m WC Method *Visual	>20 >0.1 NONE	2 NEG NONE	2 NEG NONE	
Potassium Water	ppm scalar scalar	ASTM D5185m WC Method *Visual *Visual	>20 >0.1 NONE NONE	2 NEG NONE NONE	2 NEG NONE NONE	
Potassium Water Silt Debris Sand/Dirt	ppm scalar	ASTM D5185m WC Method *Visual	>20 >0.1 NONE	2 NEG NONE	2 NEG NONE	
Potassium Water Silt Debris	ppm scalar scalar scalar	ASTM D5185m WC Method *Visual *Visual *Visual *Visual	>20 >0.1 NONE NONE NONE	2 NEG NONE NONE	2 NEG NONE NONE	
Potassium Water Silt Debris Sand/Dirt Appearance	ppm scalar scalar scalar scalar	ASTM D5185m WC Method *Visual *Visual *Visual	>20 >0.1 NONE NONE NONE	2 NEG NONE NONE NONE NORML	2 NEG NONE NONE NORE	
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water	ppm scalar scalar scalar scalar scalar	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual	>20 >0.1 NONE NONE NORML NORML	2 NEG NONE NONE NORML NORML NEG	2 NEG NONE NONE NORML NORML NEG	
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium	ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m	>20 >0.1 NONE NONE NORML NORML >0.1	2 NEG NONE NONE NORML NORML NEG 0	2 NEG NONE NONE NORML NORML NEG 7	
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron	ppm scalar scalar scalar scalar scalar scalar ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m	>20 >0.1 NONE NONE NORML >0.1	2 NEG NONE NONE NORML NORML NEG 0 4	2 NEG NONE NONE NORML NORML NEG 7 9	
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium	ppm scalar scalar scalar scalar scalar scalar ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m	>20 >0.1 NONE NONE NORML NORML >0.1	2 NEG NONE NONE NORML NORML NEG 0 4	2 NEG NONE NONE NORML NORML NEG 7 9 <1	
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum	ppm scalar scalar scalar scalar scalar ppm ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m	>20 >0.1 NONE NORML NORML >0.1	2 NEG NONE NONE NORML NORML NEG 0 4 0 2	2 NEG NONE NONE NORML NEG 7 9 <1 2	
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >0.1 NONE NONE NORML >0.1 2 0 0 9	2 NEG NONE NONE NORML NORML NEG 0 4 0 2 2 <1	2 NEG NONE NONE NORML NORML NEG 7 9 <1 2 2 <1	
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Malybdenum Manganese Magnesium	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >0.1 NONE NONE NORML >0.1 2 0 0 9 1	2 NEG NONE NONE NORML NORML NEG 0 4 0 2 <1 15	2 NEG NONE NONE NORML NORML NEG 7 9 <1 2 <1 2 <1 27	
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Barium Molybdenum Manganese Magnesium	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >0.1 NONE NONE NORML NORML >0.1 2 0 0 9 1 3131	2 NEG NONE NONE NORML NORML NEG 0 4 0 2 <1 15 3422	2 NEG NONE NONE NORML NORML NEG 7 9 <1 2 <1 2 <1 2 7 3133	
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Malybdenum Manganese Magnesium Calcium	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >0.1 NONE NONE NORML >0.1 2 0 0 9 1 3131 1194	2 NEG NONE NONE NORML NORML NEG 0 4 0 2 <1 15 3422 831	2 NEG NONE NONE NORML NORML NEG 7 9 <1 2 <1 2 <1 27 3133 959	
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Malybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >0.1 NONE NONE NORML >0.1 2 0 0 0 9 1 3131 1194 1281	2 NEG NONE NONE NORML NORML NEG 0 4 0 2 <1 15 3422 831 1123	2 NEG NONE NONE NORML NORML NEG 7 9 <1 2 <1 2 <1 27 3133 959 1157	
Potassium Water Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Malybdenum Manganese Magnesium Calcium	ppm scalar scalar scalar scalar scalar ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m WC Method *Visual *Visual *Visual *Visual *Visual *Visual ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>20 >0.1 NONE NONE NORML >0.1 2 0 0 9 1 3131 1194	2 NEG NONE NONE NORML NORML NEG 0 4 0 2 <1 15 3422 831	2 NEG NONE NONE NORML NORML NEG 7 9 <1 2 <1 2 <1 27 3133 959	





